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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,683	02/26/2002	Peter Loc	MP0120	1548
26703	7590	06/26/2006	EXAMINER	
HARNESSE, DICKEY & PIERCE P.L.C.			TRAN, PHUC H	
5445 CORPORATE DRIVE				
SUITE 400			ART UNIT	PAPER NUMBER
TROY, MI 48098			2616	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

### Office Action Summary

Application No.

10/085,683

<b>Applicant(s)</b>	
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LOC ET AL.

Examiner

PHUC H. TRAN

Art Unit	
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2616

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-83 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-14, 19-21, 23-32, 37, 38, 40-49, 54, 55, 57-61, 63-65, 67-71, 73-75, 77-80 and 83 is/are rejected.
- 7) ☒ Claim(s) 4, 15-18, 22, 33-36, 39, 50-53, 56, 62, 66, 72, 76, 81 and 82 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 50 is objected to because of the following informalities: the claim 50 should be depended on claim 48. Appropriate correction is required.

Claim 52 is objected to because of the following informalities: the claim 62 should be depended on claim 61. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5-7, 12-14, 19-21, 23-26, 30-32, 37, 38, 40-42, 47-49, 54, 55, 57-61, 63-65, 67-71, 73-75, 77-80 are rejected under 35 U.S.C. 102(b) as being anticipated by Lin (U.S. Patent No. 5768531)

- With respect to claims 1,19,37,54,63-64, 73-74 and 83, Lin teaches a wireless network (e.g. Fig. 1 shows the wireless network) comprising: a plurality of nodes that transmit and receive radio frequency signals (e.g. WSs in Fig. 1); and

an access point (e.g. 1 and 2 in Fig. 1) that transmits and receives radio frequency (RF) signals, that wirelessly communicates with said plurality of nodes, that generates a table containing a list of nodes operating in said wireless network, and that broadcasts said table to said plurality of nodes (e.g. block 201a in Fig. 2a),

wherein a first node of said plurality of nodes receives said table and determines a hidden status of a second node in said table (col. 4, lines 55-60).

- With respect to claims 2,3,5-6,20,21,23-24,38,40-41,55,57-58,65,67-68,75, & 77-78, Lin also teaches wherein said first node communicates directly with said second node if said second node has a not hidden status and communicates with said second node through said access point if said second node has a hidden status (col. 5, lines 4-19).

- With respect to claims 7,25-26, & 59, Lin teaches wherein said first node includes an aging timer for other nodes in said table and wherein said first node updates said hidden status of one of said other nodes if said aging timer of said other node expires (e.g. table in Fig. 5 shows the aging counter).

- With respect to claims 12,30,47,60,70, & 80 Lin teaches wherein said first node broadcasts an acknowledgement request to said other nodes in said wireless network when said new table is received (see col. 5, lines 20-30).

- With respect to claims 13,31,48,61, & 71, Lin teaches wherein said first node sets said hidden status of said other nodes equal to hidden if a response to said acknowledgement request is not received within a predetermined period and sets said hidden status of said other nodes equal to not hidden if a response to said acknowledgement is received within said predetermined period (col. 7, lines 1-10).

- With respect to claims 14,32, & 49, Lin discloses wherein said table generated by said access point further includes at least one address for each of said plurality of nodes and an active/inactive status of each of said plurality of nodes (col. 7, lines 10-20).

- With respect to claims 42,69, & 79, Lin comprises timing periodically updating said means associated with said first hidden status means for hidden status of at least one of said other nodes (col. 2, lines 55-66).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-11, 27-29 and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (U.S. Patent No. 5768531) in view of Connor (Pub. No. 2004/0221080).

- With respect to claims 8-11,27-29, and 43-46, Lin discloses all the subject matter of the claimed invention with the exception of including a packet counter and byte counter in a communications network. Connor (2004/0221080) from the same or similar fields of endeavor teaches a provision of determining the hidden status of the second node in the table (see paragraph 0027). Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to use a packet counter and byte counter as taught by Connor (2004/0221080) in the communications network of Lin.

The packet counter and byte counter can be implemented/modified into the network of Lin since the reference does teach bandwidth allocation. The motivation for using the packet counter and byte counter as taught by Connor (2004/0221080) into the communications network

of Lin being that it provides the system more reliable since it prevents congestion the access point.

***Allowable Subject Matter***

6. Claims 4,15-18,22, 33-36,39,50-53,56,62,66,72,76,81-82 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

The following claims 2-3,5-7,12-13,20,21,23-26,30-31,38, 40-42,47-49,55,57-61,65,67-71 and 77-80 were indicated allowable by examiner in previous office action; however, these claims are unpatentable in view of new arts. Therefore, these indicated claims are withdrawn.

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wentink (U.S. Patent No. 6791962 B2) discloses direct link protocol in wireless local area network.
- Wellig et al. (U.S. Patent No. 6580704 B1) discloses direct mode communication method between two mobile terminals in access point controlled wireless LAN systems.

- Swail (U.S. Patent No. 6292475 B1) discloses flow initiated burst mode communication for wireless communication network systems and method.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUC H. TRAN whose telephone number is (571) 272-3172.

The examiner can normally be reached on M-F (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHI PHAM can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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P.t  
6/21/06

  
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SUPERVISORY PATENT EXAMINER

6/21/06